
TRAC Theoretical Roman Archaeology Conference

www.trac.org.uk

Paper Information:

Title: Collapse Theory and the End of Birdoswald
Author: Tony Wilmott
Pages: 59–69

DOI: http://doi.org/10.16995/TRAC1992_59_69

Publication Date: 31 March 1995



Volume Information:

Rush, P. (ed.) 1995. *Theoretical Roman Archaeology: Second Conference Proceedings*. Worldwide Archaeology Series, vol. 14. Aldershot: Avebury/Ashgate.

Copyright and Hardcopy Editions:

The following paper was originally published in print format by Avebury Press (an imprint of Ashgate). This volume is no longer in print, but hard copy editions may still be available from book dealers.

TRAC has now made this paper available as Open Access, after consulting the original publisher's rights office. Copyright remains with TRAC and the individual author(s), and all use or quotation of this paper and/or its contents must be acknowledged. This paper was released in digital Open Access format in April 2013.

COLLAPSE THEORY AND THE END OF BIRDOSWALD

Tony Wilmott

We must accept that the soldiers of the Wall returned to the soil from which they sprang.

Thus, in the absence of evidence for the post-Roman period on the frontier, did Breeze and Dobson (1976: 232) conclude their account of Hadrian's Wall in the third and fourth centuries. Excavations by the Central Archaeological Service of English Heritage at Birdoswald, directed by the writer between 1987-92 have highlighted the period, and buildings post-dating the latest Roman coins and pottery have been recovered. Similar developments have also been found at South Shields, and in a more recent synthesis of Hadrian's Wall, Johnson (1989: 112) has cited these developments as the first real evidence that activity, of whatever kind, continued in the forts of the wall and its hinterland during the fifth century, suggesting further that as settlement nuclei, forts may have become local power centres with the potential to become 'part of the jigsaw that formed itself into the developing Northumbrian kingdom'. These discoveries alone, however, still lack a context as so little is known of northern Britain in the sub-Roman period. This paper constitutes a preliminary attempt to place the developments at Birdoswald into a somewhat more theoretical framework, and to provide some basis for future discussion.

Briefly, the Birdoswald evidence may be seen to reflect a transition from the 'Roman' occupation pattern of the late 4th century to a distinctive, and

apparently 'non-Roman' pattern in the 5th or early 6th centuries. The evidence is located in the area immediately south of the *via principalis* of the fort, adjacent to the principal west gate. During the period from c. AD 200 to the 4th century this area was occupied by granaries of standard Roman military type. In the later 4th century, the raised and ventilated sub-floor of the southern granary was backfilled, and the flagstone floor relaid. A *terminus post quem* of AD 348 is provided for this by the latest coin in the backfill. At the western end of the building were a series of stone hearths, around which high quality finds were dropped. These included a glass finger ring and a gold earring; both mid-fourth century types, and also the latest coin from Birdoswald; a Theodosian issue dating to AD 388–395.

In the north granary the collapse of the roof after AD 353 was followed by the spoliation of the building for stone. It appears that the walls and the flagstone floor were extensively quarried. The former hollow sub-floor was now used for dumping. Pottery in the dumping suggests that it was contemporary with the reuse of the south granary. The coins are a better guide to date, however, and John Davies (forthcoming) has pointed out that the group of coins from this dump are later than those from the deliberate backfilling of the sub-floor of the south granary. The two groups are, in fact, complementary. The south granary backfill contained 23 coins of which the latest was dated to AD 348, and no fewer than fourteen ranged from AD 324–348. No FEL TEMP REPARATIO issues were present in this group. In the north granary dumping eight coins out of fifteen are dated to AD 348–378, beginning with FEL TEMP REPARATIO coins. Had later coins been circulating when the floor of the south granary was laid, there is little doubt that at least one would have been incorporated in the backfill. As this was not the case, the reflooring of this building cannot have been much later than c. AD 350. The dereliction and robbing of the northern building would have followed on closely after.

As well as the coins a pennanular brooch was found in the dumped material in the north granary. This was of a type identified by Margaret Snape (1992) as sub-Roman. An inscription commemorating the construction of a granary (RIB 1909) was found reused in the reflooring of an adjacent building during excavations in 1929 (Richmond and Birley 1930). The numismatic evidence confirms a *terminus post quem* after AD 364–375 for the phase during which the inscription was reused, based on a sealed coin of Valentinian I (ibid.: 174). The latest coin overlying this floor was dated by Kent (1951: 9) to after AD 389. It is entirely consistent with the evidence to suggest that the inscription was robbed from the north granary

for immediate use in the building excavated in 1929.

Beyond the fact that they are stratigraphically later than the deposition of the coins and the brooch from the north granary, the following two phases cannot be dated. The first phase consisted of a group of two timber structures. One was built on the *intervallum* road of the fort to the south of the west gate. This was constructed using ground-fast posts, and utilised the west wall of the fort as one side. It was probably a lean-to construction. The main building was erected on the site of the north granary. The walls of the building were utilised as sleeper walls with post holes cut a single course deep into the wall tops. The floor of the building consisted of fissile micaceous shale flagstones which were laid over the earlier dumping and the collapsed roofing. Post holes were not found around the entire building, suggesting that elements of the stone walls survived to a higher level when the timber building was constructed.

The second phase, which was stratigraphically later than the phase of timber building just described consisted of a further group of buildings which appeared to be the functional successors of the first. Again buildings were erected on the *intervallum* road. This time, however, these were free-standing structures which did not utilise the Roman stone structure. The remains of the buildings were subtle, and difficult to recognise, as they were surface built using sleeper beams as footings, the imprint of which was barely discernible. The principal building was an altogether more impressive structure. Figure 4.1 shows site staff standing on the principal post-pads of the building, which measured 23.00m x 8.60m. It was defined by a row of stone post pads which ran parallel to the north wall of the former north granary, and by a shallow trench running the length of the former building. On examination, post pads corresponding to those in the northern row were found. The movement northwards of this building is probably significant. The north wall of the north granary (and therefore that of the first phase timber building) was built to respect the southern wall of the double-portal west gate. The south portal of the gate was blocked during the third century. The effect of this was to leave a band of dead ground amounting to half the width of the *via principalis* in front of the granary. The post-pad building was moved northwards to cover this ground, such that the north wall of the building lined up with the south side of the single portal gate. This careful consideration of the use of space within the fort, and the relationship between the building and the gate suggests that the building was of some status.

Sequences such as that found at Birdoswald are as yet rare in Britain.



Figure 4.1. Excavation staff mark out the principal post positions of the main building of the second phase of timber structures at Birdoswald (English Heritage).

The closest parallel is provided by Philip Barker's work at Wroxeter. Here the finds from the site were of late 4th rather than 5th century date, and a sequence of structural phases post-dating the appearance of the latest Roman material occurred. The re-flooring and partial demolition of the Basilica at Wroxeter is associated with coins of the House of Valentinian (Esmonde-Cleary 1989: 152; White 1990). The end of occupation is given a rough *terminus ante quem* by a carbon 14 date of ad 610±50 from a skeleton which was buried after the end of the timber building sequence (White 1990). In between these dates came successively a 'building yard' phase, the final demolition of the basilica, and the construction of a range of very substantial timber buildings on prepared platforms of rubble. The dating of the site is reliant on an assessment of the length of time buildings might have survived, or pathways been worn. The timber buildings at Wroxeter and Birdoswald were surface built on stone pads or reused walls, preventing the ground level rot which is a problem of ground-fast timbers. Properly maintained such a building could have lasted a very long time indeed. At Wroxeter, Barker (1985: 114) recognises the potential of such buildings to last anything from 25 years to a century, favouring a point midway between

the two, and thus constructs a possible chronology for a sequence of three buildings. Barker (1985: 114–15; 1990b: 226) considers that the structural sequence is unlikely to have spanned less than one and a half centuries, and White (1990) sees the major timber building phase as lasting from AD 450–550.

Given the dating evidence at Birdoswald, alternative chronologies can be suggested. A minimum chronology for these phases would begin directly with the *terminus post quem* of AD 388–395 for the construction of the first timber phase, and would allocate 25 years life to each set of timber buildings, terminating the sequence c. AD 445. The maximum chronology would consider that the first timber phase, with its *terminus post quem* of AD 388–395 need not begin until AD 420. It may be even later if the reuse of the south granary was protracted, and the first of the large timber structures was its functional replacement. Adding a century for the lifetime of each of the two phases would provide a terminal date c. AD 620. An average may be taken assuming 50 years life for each timber building phase. This would mean that the post pad building would have been constructed c. AD 470, and the site abandoned c. AD 520. The writer is aware that both shorter and longer chronologies must, given the nature of the evidence, be considered valid.

The evidence for sub-Roman continuity at Birdoswald is substantial, as demonstrated by the above short summary. Though difficulties with chronology are at present insuperable, the transition from a the site as Roman fort to something which is different appears to the writer to be significant. The stages through which the site passes may have relevance to other sites where evidence for this period might be discovered. The stages may be categorised as phases of reuse and demolition, followed by adaptation, and finally rebuilding.

The first of these, a phase of reuse and demolition, is represented by the differing treatments of the two granaries during the mid-fourth century. The pattern at this time seems to be typical of one symptom of social and economic collapse described by Tainter (1988: 20), where:

Little new construction [is undertaken], and that which is attempted concentrates on adapting existing buildings. Great rooms are subdivided, public space turned to private. When a building collapses the residents move to another.

The filling of the floors of the south granary suggest that the use of the building was changed. The domestic debris and hearths found within the

building relate only to the final phases of its use, but suggest that this former 'official' building eventually acquired a private, domestic function. The north granary was quarried, and it seems likely that the building excavated in 1929 continued to be maintained as a 'rough shack' (Simpson and Richmond 1933: 262) using *spolia* from this building. Thus existing buildings were adapted and an official structure turned over to domestic use, while areas of the fort lay empty as buildings were quarried for materials.

A similar phase may also be represented by the 'building yard' phase at Wroxeter (White 1990: 5), and by the quarrying of road material at South Shields (Bidwell 1989: 89), if it is assumed that materials from the excavated areas of these sites were quarried for use elsewhere on these sites. A similar situation can be adduced at Exeter. Here, a new floor was laid in the basilica in or after the reign of Valens (AD 365–378). After the demolition of the basilica the products of demolition were removed wholesale, possibly for reuse elsewhere, before the area was given over to an organised cemetery by the mid-5th century (Bidwell 1979: 108–113).

There is no reason to suppose that the south granary could not have continued in use for a some considerable time. Greenhalgh (1989: 103) notes that the solid construction of civil *horrea* meant that they often survived to be reused with other functions. He cites those at Arezzo, used as housing by AD 876. In AD 895 the *horrea* at Trier, were reused as the '*monasterium s. Mariae vocatum Orrea*' (Eiden 1949: 73–74). Elsewhere (Wilmott 1988) it has been suggested that the granary was used as a hall. The evidence for this being the large hearths situated at one end of the building, and the fact that high quality finds were exclusively recovered from around these hearths.

The first large timber building falls technically and chronologically between the reuse of old buildings and the construction of new ones. It is not possible to be certain how much of the stone fabric was standing when the timber elements were constructed, but at least some parts of the building might have stood to some height, and that the building was partly stone and partly timber built. Buildings combining parts of ruinous stone structures with timber additions are known from at least three other sites. The latest phase of the south-west gate at South Shields included the replacement of the south-eastern arch with a timber gateway (Bidwell 1989: 89). At the temple of Uley, Gloucestershire, the collapse of part of the temple in the late 4th century was followed by the clearance of debris, and the modification and reuse of the surviving portions of the stone building, including an added timber framed element (Woodward 1993: 63–4). At Rivenhall

(Rodwell and Rodwell 1986: 63) a late or sub-Roman timber structure in the form of a projecting wing was added to the villa frontage, its construction similar to that of the fifth century Wroxeter buildings. The use of one earlier wall to build a lean-to structure, as appears to have been the case with the smaller building of the first timber phase is perhaps the easiest way of reusing existing fabric. This approach is exemplified in the fifth century Wroxeter complex (Barker 1981: fig. 5; White 1990: 6, fig. 13).

The final phase is one of rebuilding. The second timber building phase ignored the Roman stone structures and were constructed where required. The large building respected the west gate, and was clearly constructed with a spatial relationship with the gate as an important factor in its layout. The principal buildings of the timber phase at Wroxeter were similarly new constructions, taking no discernible pattern from their stone built forerunners.

The continuity of settlement attested stratigraphically appears, therefore, to be echoed in a gradual change in the way the inhabitants of the fort change the way in which space and existing building fabric is used. There is a logical succession of phases, from reuse to adaptation and then to rebuilding on new lines with different materials; a sequence which fits in well with the processes of building decay, and allows for habitation and decay to continue side by side. We have been fortunate at Birdoswald in being able to follow these processes within a clear stratified sequence, but they are stages which we should be looking for at every opportunity.

Who was doing all this adaptation and reuse? The obvious answer is that it was a result of continuity of settlement, and the lack of any archaeological hiatus confirms this. At Vindolanda Bidwell (1985: 46) has demonstrated that a refurbishment of the defences took place during the late 4th or early 5th century, and tenuously suggests that this could be seen in context with the refortification of western Iron Age hillforts in the 5th-6th centuries. This seems highly likely. The idea that the northern forts persisted as the sub-Roman defensive sites of the north is one which is emerging from work at Birdoswald, South Shields, and at Binchester. It is not, however a new idea; a Nennian reference which can be shown to refer to the fort at Old Carlisle encouraged Eric Birley (1951: 39) to 'suspect that it survived for many a long year after the "departure of the Romans" as a centre of sub-Roman civilization in Cumbria'.

This would fit with the documentary evidence for the survival of attenuated *romanitas* in the north and west within a series of small territories and kingdoms. In his report on the late 4th or 5th century refortification of Vindolanda Paul Bidwell (1985: 46) has tenuously suggested that this can

be seen in context with the refortification of south-western hill forts in the 5th and 6th centuries.

The radical changes in the type of settlement at Birdoswald at the end of the fourth century and beyond are, of course, symptomatic of the more general collapse of Roman Britain and the western empire at large. The western Roman collapse has traditionally been regarded as an unparalleled catastrophe, after which 'a period of recrudescing barbarism' (Wheeler 1932, on Lydney) set in, during which the inhabitants of the area 'sank lower and lower in the scale of civilization' (Collingwood 1924, on Cumbria). Tainter's (1988) recent examination of the phenomenon of the collapse of complex societies cites Rome among a large number of examples in which collapse can be seen as the result of declining marginal returns on investment in complex social and political systems.

In the case of the Roman collapse, as summarised by Tainter (*ibid.*: 128–52, 188, 196), the snowballing consequences of increased taxation on a smaller and less productive population created apathy about the continuance of Roman rule. Millet (1990: 212–30), summarising this period in Britain, has suggested that the provincial elite took upon itself the deliberate rejection of centralised Roman government in AD 409, attributing the revolt to 'those paying taxes for a defence and administration which no longer served their needs' (*ibid.*: 228). Tainter (1988: 121) would rightly see this as a decision deliberately to reject complex structures which have outlived their usefulness and thus to release resources to create a more dynamic society, better able to cope with the stresses imposed upon it. The phenomenon of collapse is seen, therefore, as part of a continuum; 'not a fall to some primordial chaos, but a return to the normal human condition of lower complexity' (*ibid.*: 198). While considering these ideas in the winter of 1991/2, only a few months before this conference, it was illuminating to watch the swift unfolding of an apparently similar process in the former Soviet Union. Historians of the future will doubtless tell us whether the events leading to the change of flag on the Moscow Kremlin in December 1991 can be seen in these terms, but at present they appear to inform the problem. It seems arguable that the Soviet system was dismantled from within at least in part as a result of the perception that investment in the governmental structures of the union no longer served those paying for it. The resulting dissolution of the union into its constituent republics was almost universally welcomed as a result. To look at the period after the Romano-British collapse in a non-pejorative manner must aid the understanding of that period as one not of catastrophe but of change, and change

which may to a great extent have been welcomed by many of those who participated in it, who could not know what result their actions might have.

By the third century at the latest, Britain was supplying the normal needs of the auxiliary units in the island, and this was formalised as late as AD 313 by legal hereditary service (Dobson and Mann 1973: 201). As late as AD 372 the sons of soldiers drew rations (Tainter 1988: 144). The direct result of a taxation revolt would be that the troops on the wall would no longer have been paid or supplied. Holder (1982: 103) compares Britain to other provinces where no combined effort was made against invaders by populations or garrisons, concluding that 'with no concerted effort in time of trouble individual units would have been destroyed . . . [or] faded away over a period of time' (ibid.). Esmonde-Cleary (1989: 142) cites the account in the *Vita Sancti Severini* of the *limitanei* of Noricum Ripense in AD 452. Pay had ceased, troops sent to get pay had been killed by barbarians, and consequently only a few very small formations were left. He suggests the same pattern for the British northern frontier.

A different model is suggested by the Birdoswald evidence. In the British diocese at large, Millett (1990: 218-19) demonstrates how the burden of the documentary sources shows *romanitas* surviving in the north and west in the second half of the fifth century in 'a series of different territories no longer knitted into the single whole which had existed before the expulsion of the imperial administration in AD 409' (ibid.: 218). Tainter (1988: 19) argues that when social organisation reduces to the lowest economically viable level 'groups which had been economic and political partners may become strangers or threatening competitors'. Given that the revolt of AD 409 would have thrown the wall garrisons, which by this time were probably not very large, onto their own resources, it is possible to visualise a pseudo-military structure remaining in place for some time. However it is also easy to see how a small cohort of *limitanei* might mutate into the *comitatus* of a leader, or succession thereof. The military and organisational partnership on the wall might break up, and only suitably positioned forts continue in occupation.

The material evidence for such a mutation might well take the form of the Birdoswald sequence. In each phase a long rectangular building appears to be the focus around which other buildings are constructed. In the final phase the importance of this building is stressed by significantly altering its position with relation to the fort gate. It is possible that these buildings were successive halls; central foci of a settlement type whose ancestry lies in the pre-Roman Iron Age, and in the less romanised area

north of the Roman frontier rather than in the history and installations of the frontier itself.

This paper should be regarded as a series of interim statements and ideas based on work in progress. A number of themes appear to be emerging from the continuing analysis of the Birdoswald sequence, although these cannot as yet be placed into a coherent framework.

References

- Barker, Philip 1985. Aspects of the Topography of Wroxeter, Viroconium Cornoviorum. In Grew and Hobley (eds) 1985, 109-217.
- Barker, Philip (ed.) 1990a. *From Roman Viroconium to Medieval Wroxeter: Recent work on the Roman city of Wroxeter*. Worcester.
- Barker, Philip 1990b. Open Area Excavation, Illustrated by the Excavation of the Baths Basilica at Wroxeter Roman City, Shropshire, England. In P. Francovich and D. Manacorda (eds), *Lo Scavo Archeologico: Dalla Diagnosi All'Edizione*, 205-234. Firenze.
- Bidwell, P. T. 1979. *The Legionary Bath-House and Basilica and Forum at Exeter*. Exeter: (Exeter Archaeol. Reports 1).
- Bidwell, P. T. 1985. *The Roman Fort of Vindolanda*. London: Historic Buildings and Monuments Commission for England (Archaeological Reports, 1).
- Birley, Eric 1951. The Roman Fort and Settlement at Old Carlisle. *Transactions of the Cumberland Westmorland Antiq. Archaeol. Society* (new ser.) 51:16-39.
- Casey, P. John forthcoming. The End of Garrisons on Hadrian's Wall: an Historico-Environmental Model.
- Collingwood, Robin G. 1924. The Last Years of Roman Cumberland. *Transactions of the Cumberland Westmorland Antiq. Archaeol. Society* (new ser.) 24:247-255.
- Davies, J. A. forthcoming. The Coins. In Wilmott, forthcoming.
- Dobson, Brian and J. C. Mann 1973. The Roman Army in Britain and Britons in the Roman Army. *Britannia* 4:191-205.
- Eiden, Hans 1949. Untersuchungen an den spatromischen Horrea von St Irminen in Trier. *Trierer Zeitschrift* (1949):73-98.
- Esmonde-Cleary, A. S. 1989. *The Ending of Roman Britain*. London.
- Greenhalgh, Michael 1989. *The Survival of Roman Antiquities in the Middle Ages*. London.
- Grew, F. and B. Hobley (eds), 1985. *Roman Urban Topography in Britain and the Western Empire*. London: Council for British Archaeology (Research Report 59).
- Holder, P. A. 1982. *The Roman Army in Britain*. London.

- Johnson, S. 1989. *Hadrian's Wall*. London.
- Kent, J. P. C. 1951. Coin Evidence and the Evacuation of Hadrian's Wall. *Transactions of the Cumberland Westmorland Antiq. Archaeol. Society* (new ser.) 51:4-15.
- Millett, Martin 1990. *The Romanisation of Britain*. Cambridge: Cambridge University Press.
- Richmond, Ian A. and Eric B. Birley 1930. Excavations on Hadrian's Wall in the Birdoswald-Pike Hill Sector, 1929. *Transactions of the Cumberland Westmorland Antiq. Archaeol. Society* (new ser.) 30:169-205.
- Rodwell, W. J. and K. A. 1985. Rivenhall: Investigations of a Villa, Church and Village, 1950-1977. London: Council for British Archaeology (Research Report 55, Chelmsford Archaeological Trust Report 4).
- Simpson, F. G. and Ian A. Richmond 1933. 1. Birdoswald, in Report of the Cumberland Excavation Committee for 1932; Excavations on Hadrian's Wall. *Transactions of the Cumberland Westmorland Antiq. Archaeol. Society* (new ser.) 33:246-262.
- Snape, M. E. 1992. Sub-Roman Brooches on the Northern Frontier. *Archaeologia Aeliana* (5 ser.) 20:158-160.
- Tainter, J. A. 1988. *The Collapse of Complex Societies*. Cambridge: Cambridge University Press.
- Wheeler, R. E. Mortimer and Tessa V. Wheeler 1932. *Report on the Excavation of the Prehistoric, Roman and Post-Roman Site in Lydney Park, Gloucestershire*. London: Society of Antiquaries London (Research Report 9).
- White, R. 1990. Excavations on the Site of the Baths Basilica. In Barker 1990a, 3-8.
- Wilmott, Tony 1989. Birdoswald: Dark Age Halls in a Roman fort? *Current Archaeology* 116:288-291.
- Wilmott, Tony forthcoming. Birdoswald on Hadrian's Wall: Excavations 1987-92. English Heritage (Archaeological Reports).
- Woodward, A. 1993. The Uley Shrines. London: English Heritage (Archaeological Reports 17).